

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/074,341	02/12/2002	Jeffrey W. Liebert	4090-138	5700

7590 11/25/2003

Woodard, Emhardt, Naughton, Moriarty and McNett
Bank One Center/Tower
111 Monument Circle, Suite 3700
Indianapolis, IN 46204-5137

EXAMINER

RIVELL, JOHN A

ART UNIT PAPER NUMBER

3753

DATE MAILED: 11/25/2003

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/074,341

Applicant(s)

LIEBERT, JEFFREY W.

Examiner

John Rivell

Art Unit

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2/12/02 (app., IDS), 4/3/02 (Draws.).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 25-30 is/are allowed.
- 6) ☒ Claim(s) 1-6, 10-15 and 19-24 is/are rejected.
- 7) ☒ Claim(s) 7-9 and 16-18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 April 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Claims 1-30 are pending.

The drawings are objected to as set forth on the attached Draftsperson's Review PTO-948. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claims 11 and 30 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Specifically, each claim depends from a claim which initially includes the phrase "...imposition of a force onto said detachable end portion results in at least partial detachment from said valve housing...".

Each of the above claims then adds to the above embodiment of invention by essentially changing the broader "at least partial detachment" to "complete detachment".

In considering the scope of the claim language, it does not appear proper to set forth an embodiment of the disclosed invention in which the device suffers from "partial" and "complete" detachment resulting from the same force imposed upon it as is set forth in claims 11 and 30.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 10, 12, 13 and 14 are rejected under 35 U.S.C. §102 (b) as being anticipated by Tsiguloff.

The patent to Tsiguloff discloses, in figures 2 and 3 for example, "A safety shut-off valve, comprising: a valve housing (including elements 31, 43); a detachable end portion (the section of body 43 above V-notch 107 and including the outlet connecting flange) connected to said valve housing by a region of reduced strength (V-notch 107); a valve element (61) disposed within said valve housing (31, 43) and being displaceable between an open position (fig. 2) that permits flow through the valve and a closed position (fig. 3) that substantially prevents flow through the valve; a biasing element (spring 69) engaged with said valve element (61) to urge said valve element toward said closed position (fig. 3); and a retainer element (including all "pawls" 101, collar 95 and support 79)) disposed within said valve housing (31, 43) and engaged between said valve element (61) and said detachable end portion (above V-notch 107) to initially maintain said valve element (61) in said open position (fig. 2); and wherein imposition of a force onto said detachable end portion results in at least partial detachment from said valve housing along said region of reduced strength (as disclosed specifically at column 3, lines 12-25, the detachable end will "shift laterally, lift, twist or move with some combinations...". This is read as encompassing "partial detachment". Further "when any pawl is rotated" signifies the potential for only one pawl to move to release the valve), said at least partial detachment causing at least a portion of said retainer element to disengage said detachable end portion to permit said biasing element to

displace said valve element toward said closed position" as disclosed at column 2, line 50 through column 3, line 30 and as claimed in instant claim 1.

Regarding claim 2 in Tsiguloff "said retainer element includes a plurality of arm segments (pawls 101) engaged against said detachable end portion adjacent said region of reduced strength (V-notch 107) to initially maintain said valve element in said open position (fig. 2), said at least partial detachment causing at least one of said plurality of arm segments to disengage said detachable end portion to permit said biasing element to displace said valve element toward said closed position" as claimed.

Regarding claim 3, in Tsiguloff, "said detachable end portion includes a shoulder (at 109) extending about an inner periphery adjacent said region of reduced strength (107), said plurality of arm segments (101) abutting said shoulder (surface 105 to surface 109) to initially maintain said valve element in said open position (fig. 2.), said at least partial detachment causing at least one of said plurality of arm segments to disengage said shoulder to permit said biasing element to displace said valve element toward said closed position" as claimed.

Regarding claim 4, in Tsiguloff, "said shoulder (109) extends entirely about said inner periphery to define an annular shoulder" as claimed.

Regarding claim 5, in Tsiguloff, "said retainer element includes at least three of said arm segments (there are three pawls 101 disclosed) positioned uniformly about said inner periphery" as claimed.

Regarding claim 10, in Tsiguloff, "said at least partial detachment of said detachable end portion results from said valve housing is caused by fracturing along said region of reduced strength (107)" as claimed.

Regarding claim 12, in Tsiguloff, "said region of reduced strength (107) is formed by a groove extending about an outer periphery of said detachable end portion" as claimed.

Regarding claim 13, in Tsiguloff, "said region of reduced strength is formed by a narrowed wall thickness" as claimed.

Regarding claim 14, in Tsiguloff, "said retainer element (the outline of the pawls 101 and collar) has a cup-like configuration" as claimed.

Claim 1 is further and claim 11 is rejected under 35 U.S.C. §102 (b) as being anticipated by Deeks.

The patent to Deeks discloses "a safety shut-off valve, comprising: a valve housing (tank wall 2, housing portion 17 and tubular section 22); a detachable end portion (60 and 3) connected to said valve housing by a region of reduced strength (fracture groove 59); a valve element (53) disposed within said valve housing and being displaceable between an open position (fig. 4) that permits flow through the valve and a closed position (after fracture) that substantially prevents flow through the valve; a biasing element (54) engaged with said valve element (53) to urge said valve element toward said closed position; and a retainer element (38, 39, 40) disposed within said valve housing and engaged between said valve element and said detachable end portion to initially maintain said valve element in said open position; and wherein

imposition of a force onto said detachable end portion results in at least partial detachment from said valve housing along said region of reduced strength, said at least partial detachment causing at least a portion of said retainer element to disengage said detachable end portion to permit said biasing element to displace said valve element toward said closed position" as recited in claim 1 and further "wherein said imposition of force onto said detachable end portion results in complete detachment from said valve housing along said region of reduced strength, said complete detachment causing said retainer element to disengage said detachable end portion to allow expulsion of said retainer element from said valve housing and permit said biasing element to displace said valve element toward said closed position" as recited in claim 11 and as disclosed specifically at column 3, lines 30-60.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsiguloff.

Tsiguloff discloses the claimed invention except for "four of said arm segments".

It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ an additional arm segment with the disclosed three pawls 101, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Claims 15 and 19-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsiguloff in view of Brinkley et al.

The patent to Tsiguloff discloses all the claimed features with the exception of having "a valve element sized and shaped to be guidingly displaced by (the) inner periphery" of the fluid conducting passage. Rather, valve 61 includes a guide stem 59 and guide 57 to guide the valve movement.

The patent to Brinkley et al. discloses, at figures 8 and 9, that it is known in the art to employ a bore wall guided valve element at spool 60b, guided within the bore within the housing section 30, which valve closes in response to partial detachment of the detachable portion 28 along fracture groove 52 (see fig. 9) for the purpose of eliminating valve parts, such as a separate guide piece and valve stem as compared to that shown in Tsiguloff.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Tsiguloff a valve element sized and shaped to be guided within an axial bore in which the valve reciprocates for the purpose of eliminating the total number of valve parts such as a separate guide element and valve stem as recognized by Brinkley et al.

Regarding claim 19, a "lateral opening" is disclosed in the spring retainer/valve housing at reference arrow 56b which communicates with port 102 in the spool 60b.

Regarding claim 20, Brinkley et al. discloses "a portion of the valve adjacent said region of reduced strength (52) defines external threads (at 32) engagable with a corresponding threaded opening in a tank wall (20) with said region of reduced strength positioned adjacent an exterior surface of said tank wall.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ the device of Tsiguloff as a valve device threaded into a threaded wall of a tank for the purpose of controlling fluid flow from the tank as recognized by Brinkley et al.

Regarding claim 21, on the exterior surface of the device of Brinkley et al. there is believed to be inherently at least "two flat" sections enabling tightening with a wrench as claimed.

Regarding claim 22, to make the outer shape of the surface of the device of Tsiguloff, as modified by Brinkley et al., a "hexagonal shape" is considered to be an obvious design expedient not solving any stated problem not providing new and unexpected results. Additionally, to do so would have been obvious to one of ordinary skill in the art to accommodate multiple wrench positions.

Regarding claim 23, Tsiguloff discloses "said retainer element includes a plurality of arm segments (pawls 101) engaged against said detachable end portion adjacent said region of reduced strength (107) to initially maintain said valve element (61) in said open position (fig. 2), said at least partial detachment causing at least one of said plurality of arm segments to disengage said detachable end portion to permit said biasing element to displace said valve element toward said closed position" as claimed.

Regarding claim 24, Tsiguloff discloses that "said detachable end portion includes a shoulder (109) extending about an inner periphery thereof adjacent said region of reduced strength (107), said plurality of arm segments (101) abutting said shoulder (surface 105 abutting surface 109) to initially maintain said valve element in said open position (fig. 2), said at least partial detachment causing at least one of said plurality of arm segments to disengage said shoulder to permit said biasing element to displace said valve element toward said closed position" as claimed.

Claims 25-29 are allowed.

Claims 7-9 and 16-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 3753


Claim 30 would be allowable if rewritten or amended to overcome the objection under 37 CFR 1.75(c), set forth in this Office action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Rivell whose telephone number is (703) 308-2599. The examiner can normally be reached on Mon.-Thur. from 6:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Scherbel can be reached on (703) 308-1272. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0861.


John Rivell
Primary Examiner
Art Unit 3753

j.r.